Joint session of the
42nd Meeting of the Radiation Safety Standards Committee
43rd Meeting of the Waste Safety Standards Committee
13 June 2017

Agenda Item: RW4.2

Title of Presentation: Proposal to Develop a Safety Guide on Regulatory Control and Radiation Safety for Radiotracers

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Background

- NSRW received a request from a number of MS, through NAPC, to provide advice on a regulatory approach applicable for the use of radioactive tracers in industry and environmental studies.
- The immediate need is to cover a chapter with safety and regulatory considerations in a TECDOC in preparation by NAPC:
  - Title of the TECDOC: “Using Radiotracers Safely: Regulation and Environmental Protection” (subject to revision).
Work done

• Due to the lack of specific Safety Standards WES and RSM Sections based the advice on existing Requirements, Safety Guides and TECDOCs.

• A chapter to be included in the TECDOC in preparation by NAPC was drafted with the assistance of international consultants, working in cooperation with staff from NAPC and NSRW.
Requirements

• Regulatory infrastructure, GSR Part 1 (Rev. 1).
• Management of safety, GSR Part 2.
• Radiation protection and safety of sources, GSR Part 3.
• Safety assessment, GSR Part 4 (Rev. 1)
Safety Guides

- Occupational radiation protection, DS 453.
- Radiation protection of public and the environment, DS432.
- Prospective radiological environmental impact assessment, DS427.
- Regulatory control of discharges, DS442.
TECDOCs

- Notification and authorization, TECDOC 1525.
- Inspection and enforcement, TECDOC 1516.
Contents chapter on regulatory considerations (in the TECDOC in preparation by NAPC) (1/3)

• Authorization process:
  – Regulatory Body
  – Authorized parties
  – Responsibilities
  – Qualifications

• Safety Assessment and Environmental Impact Assessment
  – Safety
  – Radiation protection workers
  – Radiological Environmental Impact Assessment
• Monitoring system and compliance verification
  – Responsibilities
  – Parameters
  – Frequency
  – Action levels
  – Reporting
  – Compliance and Enforcement
• Management of unplanned events
  – Conservative estimation of consequences of typical mistakes scenarios.
  – Contingency plans characteristics:
    • Detection
    • Notification
    • Mitigation
    • Seek of assistance
    • Contingency equipment
Discussion (1)

• After requests from MS, NAPC needed support from NSRW for a regulatory chapter in a TECDOC specific for uses of traces in the industry and environmental applications.

• NSRW based its advice on existing applicable Safety Standards and related TECDOCs.

– Would committees provide any feedback to the proposal?
Discussion (2)

- Radiation risk is relatively low in most of the scenarios, even for unplanned events.
- It seems to be a lack of an uniform regulatory approach.
- It involves interested parties outside the nuclear sector.
- Environmental practices with RN are becoming more and more controversial.
  - The Secretariat (NSRW) considers that a Safety Guide might be justified.
  - We would like to hear committee members views in order to plan how to move forward (DPP, SPESS?)
Thanks!

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